

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Revision of the Commission's Rules to)	CC Docket No. 94-102
Ensure Compatibility with Enhanced 911)	
Emergency Calling Systems)	
)	

**NOW Licenses, LLC Amended Report on
Implementation of Wireless E911 Phase II
Automatic Location Information**

NOW Licenses, LLC ("NOW Licenses")¹ hereby submits an amended report regarding implementation of wireless enhanced 911 ("E911") Phase II Automatic Location Identification ("ALI"), pursuant to the Commission's Fourth Memorandum Opinion and Order² in the above-captioned proceeding, to reflect a recent change in the technology NOW Licenses plans to deploy to provide E911 Phase II automatic location information ("ALI").

I. Background/Contact Information

A. Carrier Identifying Information

Name: NOW Licenses, LLC
TRS Number: 819080

¹ NOW Licenses, LLC ("NOW Licenses") is a wholly owned subsidiary of NPI-Omnipoint Wireless LLC ("NPI-Omnipoint"). On May 30, 2001, NPI-Omnipoint notified the Commission that it had assigned all of its personal communications services (PCS) licenses to NOW Licenses in a *pro forma* transfer. See FCC File Nos. 0000356932 (and related consummation notice at FCC File No. 0000480435) and 0000480439. Accordingly, NOW Licenses is the successor interest to NPI-Omnipoint and this Amended Report amends the previous NPI-Omnipoint Wireless LLC Report on Implementation of Wireless E911 Phase II Automatic Location Identification, filed January 11, 2001 ("Original Report").

² *Fourth Memorandum Opinion and Order*, Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket 94-102, FCC 00-326 (*rel.* September 8, 2000)(*"Fourth MO&O"*).

B. Contact Information

Name: Chris Hahn

Title: Operations Manager

Address: 3054 Cass Road, P.O. Box 879, Traverse City, MI 49685

Telephone Number: (231) 883-4246

Facsimile Number: (231) 932-2309

Email: chahn@noverr.com

II. E911 Phase II Location Technology Information

A. Type of Technology

NOW Licenses previously reported to the Commission that it had chosen to implement a network-based solution for its E911 Phase II ALI technology.³ NOW Licenses also notified the Commission that it had selected Nortel as its vendor for the provision of network-based technology throughout its service territory and that NOW Licenses had already installed a portion of the Nortel software in its switches in working towards becoming E911 Phase II compliant.

NOW Licenses has recently learned that Nortel is no longer working on a purely network based Phase II ALI solution for GSM networks and is now actively working on developing the necessary network software and components for a hybrid handset/network Network Software Solution (“NSS”) and Enhanced Observed Time Difference of Arrival (“E-OTD”) solution that was proposed by Voicestream for GSM systems.⁴ In addition, since the Original Report, many GSM operators have elected to

³ Original Report at p. 2. NOW Licenses provides service in 6 BTAs in Michigan and has constructed its systems using the Global System for Mobile Communications (“GSM”) standard.

⁴ The Commission previously granted Voicestream Wireless a waiver to deploy NSS/E-OTD on a different time schedule as other technologies. In doing so, the Commission recognized that that NSS/E-OTD “may be the only method available to GSM carriers for compliance with Phase II for some time.” *Fourth MO&O* at ¶ 56. Further, the Commission recognized that there were “substantial additional public safety benefits” to the NSS/E-OTD system, including its projected rapid deployment, improved accuracy, and cost effectiveness. *Fourth MO&O* at ¶ 59.

deploy the NSS/E-OTD Phase II ALI solution proposed by Voicestream.⁵ It has now become apparent to NOW Licenses that the NSS/E-OTD solution will offer additional benefits over other solutions. First, the NSS/E-OTD solution will be available sooner than comparable purely network-based solutions and, over time, will be more accurate than network-based solutions. Second, the NSS/E-OTD solution will provide enhanced and more accurate Phase I information for all handsets on NOW Licenses system, including those who have not purchased E-OTD-capable handsets. Third, the NSS/E-OTD solution is becoming the *de facto* standard for GSM carriers and it will permit NOW Licenses customers when roaming in other GSM systems, as well as roamers on NOW Licenses systems, to receive Phase II ALI services. Fourth, NOW Licenses notes that Cingular Wireless along with other GSM carriers have concluded that “no vendor can provide A-GPS or TOA [time of arrival] technology for ... GSM networks in sufficient time to meet the Commission's E911 Phase II requirements.”⁶

B. Testing and Verification

The NSS/E-OTD solution consists of a two-step process. First, NOW Licenses will deploy NSS in its network. NSS requires certain software upgrades to

⁵ See, e.g., American Samoa License, Inc. Request for Waiver of the E-911 Phase II Rules, CC Docket 94-102, filed July 30, 2001; AT&T Wireless Services, Inc., Request for Waiver of the E911 Phase II Location Implementation Rules CC Docket 94-102, CC Docket 94-102, filed April 4, 2001; Cingular Wireless LLC Petition for Limited Waiver of Sections 20.18(e)-(h), CC Docket 94-102, filed July 6, 2001 (“*Cingular Wireless Waiver*”); Conestoga Wireless Company Petition for Waiver of E911 Phase II Location Technology Implementation Rules, filed August 9, 2001 (“*Conestoga Waiver*”); D&E/Omnipoint Wireless Joint Venture, L.P. (d/b/a PCS One) Petition for Waiver of the E-911 Phase II Location Technology Implementation Rules, CC Docket 94-102, filed June 20, 2001; Eliska Wireless Ventures License Subsidiary I, L.L.C. Petition for Waiver of the Commission’s Rules, CC Docket 94-102, filed July 26, 2001; TeleCorp PCS, Inc. Request for Temporary Waiver of The Commission’s Rules for E911 Phase II Enhanced Services, CC Docket 94-102, filed July 23, 2001; and Triton PCS License Company, L.L.C. Petition for Waiver of the E911 Phase II Location Technology Implementation Rules, CC Docket 94-102, dated August 3, 2001.

⁶ See *Cingular Wireless Waiver* at pp. 18-19; See also *AT&T Wireless Waiver* at 5-6 & n. 17; and *Voicestream Ex Parte* Presentation, CC Docket No. 94-102, at 2 (Feb. 5, 2001).

NOW Licenses' switches. Second, NOW Licenses will deploy E-OTD-capable handsets and additional infrastructure software and hardware components in its network to provide E-OTD ALI information.

NOW Licenses understands that Nortel, its network equipment infrastructure provider, has not completed all of its E911 hardware and software solutions to deploy either NSS or E-OTD.⁷ In addition, NOW Licenses understands that Nokia, one of NOW Licenses' handset vendors, is still in the process of testing E-OTD-capable prototype handsets and such handsets will not be commercially available for testing by NOW Licenses in the near term. Further, NOW Licenses understands that Mitsubishi, another of NOW Licenses handset vendors, will not have E-OTD-capable handsets in the near term. Finally, NOW Licenses has been informed that Ericsson is developing E-OTD-capable handsets, but Ericsson has not been able to provide NOW Licenses with a timeline for delivery of such E-OTD-capable handsets in the near term.

Because of the lack of commercially available handsets and network upgrades, NOW Licenses has not yet selected a testing methodology to determine the accuracy of its NSS/E-OTD Phase II ALI solution. However, as noted in the Original Report, NOW Licenses intends to comply with OET Bulletin No. 71 with respect to testing and verification methods used to gauge the accuracy of the NSS/O-ETD technology once NOW Licenses has received the necessary components and has been able to install the necessary components in its network. NOW Licenses, however, notes

⁷ See *Cingular Wireless Waiver* at p. 27, fn. 78; *Conestoga Waiver* at p. 4, fn. 9.

that recent tests performed by Voicestream Wireless indicate that NSS will meet or exceed its 1000 meter accuracy requirement.⁸

C. Implementation Details and Schedule

NOW Licenses' handset vendors have not yet supplied NOW Licenses with E-OTD-capable handsets and NOW Licenses understands that such handsets will not be available in the near term. Once NOW Licenses receives E-OTD-capable handsets it will test the handsets for interoperability with its existing network. NOW Licenses estimates that such testing will not take more than 90 days. Once testing is complete and if the handsets pass NOW Licenses handset test, NOW Licenses will begin selling and activating E-OTD-capable handsets on its network. Since E-OTD-capable handsets will not be available by the impending October 1, 2001 deadline, NOW Licenses also intends to seek a waiver of the October 1, 2001 deadline, and the corresponding phase-in of E-OTD capable handsets, until NOW Licenses' handset vendors supply NOW Licenses with E-OTD-capable handsets and such E-OTD-capable handsets have passed NOW Licenses handset tests.

NOW Licenses' understands that Nortel, its network solution vendor, has not yet developed the necessary network software and hardware components to deploy NSS/E-OTD. NOW Licenses, nonetheless, will take the following steps to implement the NSS/E-OTD solution in its network. NOW Licenses will initiate discussions with its network vendor – Nortel – to discuss what actions will be necessary for NOW Licenses to implement NSS/E-OTD. Once NOW Licenses has determined what software and network equipment it will need to implement the NSS capability in its network, NOW

⁸ See Voicestream *Ex Parte* Presentation (Apr. 23, 2001).

Licenses will devise an implementation plan to deploy the NSS solution in its network by September 30, 2002. Further, NOW Licenses will begin the process of ordering E-OTD upgrades once it receives a PSAP Phase II request in accordance with Section 20.18(j) of the Commission's Rules. NOW Licenses has not to date received a Phase II request from a public safety answering point ("PSAP") pursuant to Section 20.18(j) of the Commission's Rules. NOW Licenses also plans to file a waiver seeking a delay to deploy the NSS solution until September 30, 2002 and the E-OTD solution until the later of: (a) September 30, 2002, or (b) six months following receipt of a PSAP request for Phase II ALI information pursuant to Section 20.18(j).

D. PSAP Interface

NOW Licenses has not yet received a Phase II request from a PSAP pursuant to Section 20.18(j) of the Commission's Rules. Accordingly, NOW Licenses is not in a position to determine what particular needs exist for PSAPs in its markets. Due to the fact that some of the necessary hardware and software has not yet been accomplished by NOW Licenses' vendors, NOW Licenses is unable at this time to describe the hardware and software changes in its other systems necessary to transmit Phase II ALI data to PSAPs, or its strategy and schedule for the installation of such hardware and software changes. However, as noted above, NOW Licenses is working with its vendors to become Phase II compliant as soon as practicable.

E. Existing Handsets

NOW Licenses plans to deploy the NSS/E-OTD ALI solution. Under the NSS solution, existing handsets will have increased accuracy over existing Phase I information and no conversion of existing handsets is required. Under the E-OTD solution, existing customers will have to replace their existing handsets with E-OTD-capable handsets. To that end, NOW Licenses is committed to begin selling and activating new E-OTD-capable handsets as soon as NOW Licenses' handset vendors make such handsets commercially available and such handsets pass NOW Licenses' handset tests. NOW Licenses will also progressively sell and activate a larger percentage of E-OTD-capable handsets over time until eventually all handsets sold and activated by NOW Licenses will be E-OTD-capable. NOW Licenses believes that many of its subscribers will replace their existing handsets over the next four years, so most of its existing non-E-OTD-capable handsets will be replaced with E-OTD-capable handsets before the December 31, 2005 deadline. NOW Licenses does not have any current information on the conversion rate of existing handsets to the new E-OTD-capable handsets since NOW Licenses has not yet received the new E-OTD-capable handsets. Once NOW Licenses, however, begins selling and activating E-OTD-capable handsets, it plans to evaluate the conversion rate of existing handsets to E-OTD-capable handsets to ensure that NOW Licenses will meet the December 31, 2005 deadline.

F. Location of Non-Compatible Handsets

As described above, NOW Licenses plans to deploy an NSS solution which allows all non-E-OTD-capable handsets to receive improved accuracy over existing Phase I location information.

G. Location of Roamers

The NSS/E-OTD solution will provide Phase II ALI information to all GSM roaming customers. First, the NSS solution will permit all non-E-OTD-capable handsets to receive increased accuracy of location information over existing Phase I location information. Second, since the E-OTD solution is becoming the *de facto* standard for GSM operators for Phase II information, many of the roamers onto NOW Licenses system will have E-OTD-capable handsets which will allow them to receive the same Phase II ALI information as NOW Licenses own subscribers. Third, to the extent necessary, NOW Licenses will work with other GSM operators to ensure compatibility between GSM NSS/E-OTD solutions.

H. Other Information

At this time, NOW Licenses has not received a PSAP request for E911 Phase II implementation pursuant to Section 20.18(j) of the Commission's Rules. NOW Licenses intends to stay informed of developments and problems concerning E911 implementation in order to ensure that it complies with the Commission's E911 requirements.